



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,631	07/16/2003	Yariv Aridor	IL920030008US1	9678
7590	10/05/2006			EXAMINER PRICE, NATHAN E
Stephen C. Kaufman Intellectual Property Law Dept. IBM Corporation P.O. Box 218 Yorktown Heights, NY 10598			ART UNIT 2194	PAPER NUMBER
				DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,631	ARIDOR ET AL.	
	Examiner	Art Unit	
	Nathan Price	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 July 2003 and 01 December 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

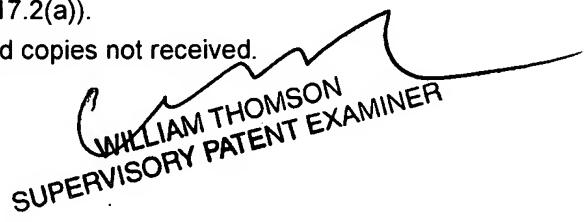
Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/1/2004
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. Claims 1 – 24 are pending.

Claim Objections

2. Claims 1 – 21, 23 and 24 are objected to because of the following informalities:

There is a lack of antecedent basis for “the user” in the last line of claims 1, 23 and 24 and for “the computer” in line 8 of claim 24. Claim 17 is also unclear as to which application complex instance is being referenced in line 7. Appropriate correction is required.

3. Although other claims are rejected under 35 U.S.C. 101, claim 24 is not currently rejected under 35 U.S.C. 101. However, the claim is objected to because it could be written to more clearly indicate that it is directed towards statutory subject matter. Specifically, the computer program product comprises a computer useable medium with computer readable program code. The claim could be more clearly directed towards statutory subject matter if it specified that the medium was a computer readable medium storing the computer program code. See also the Specification page 19 lines 22 – 24.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear if the first and second application complex instances can be the same instance. It appears that the first and second instances in claim 17 are different instances, but claim 18 specifies that they are a single instance. For the purpose of this Office Action, claim 17 is interpreted to include both possibilities so that claim 18 is able to further limit claim 17 to the situation in which the first and second instances are a single instance without contradicting claim 17.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1- 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of claims 1 – 23 raises the question as to whether or not the claims can be implemented in software alone, making the claims software, per se. It appears that the claims can be implemented in software alone and do not include hardware to realize the functionality of the software.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (US 6,697,849 B1) in view of Choquier et al. (US Patent 5,951,694; hereinafter Choquier).

As to claim 1, Carlson teaches a computer-implemented framework for managing application complexes, each application complex comprising multiple tiers of servers [Figs. 2 A – C], where servers in a common tier run an identical application and servers in different tiers run different applications, and all the servers work together to provide a specific service, said application complex being definable via an application complex type [col. 4 lines 21 – 58; col. 2 lines 19 – 28; col. 3 lines 38 – 51], said framework comprising:

a plug-in interface adapted for connection to the framework of a plug-in in respect of each application complex type, wherein said plug-in encapsulates a relationship between disparate resources composing the respective application complex type and respective characteristics of said resources [Fig. 4; col. 3 lines 38 – 51; col. 10 lines 7 – 32], and

a user interface providing general tasks that are independent of operational semantics of the application complex and that is responsive to user

operations for interfacing with the framework for defining an instance of the application complex [col. 2 lines 19 – 34; col. 4 lines 21 – 38; col. 13 lines 23 – 29].

The tiers correspond to clusters in a given tier [col. 1 lines 22 – 25; col. 3 lines 33 – 38] (and service groups in Choquier [col. 7 lines 44 – 52]). Although Carlson indicates that users can control the system it does not specifically state that a user populates the application complex with servers. However, Choquier teaches allowing the user to populate the application complex with servers [col. 7 lines 44 – 62]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because Carlson discloses adding servers to clusters [col. 4 lines 34 – 36] without providing details on how servers are added and Choquier discloses allocating additional servers to service groups [col. 7 lines 53 – 62]. It is also noted that Choquier teaches running the same service application on servers of a group [col. 7 lines 44 – 52].

As to claims 2 – 21, the combination of Carlson and Choquier (citations refer to Carlson unless otherwise indicated) teaches that:

[claim 2] the plug-in is adapted to convey to the framework information relating to the type of the application complex, the number of tiers, the application which the servers in each tier should run, and one or more properties of the application complex whose values can be specified by the user for each instance of the application complex type [Figs. 11 and 14; col. 15 lines 29 – 47]. For type of complex and number of tiers, Fig. 11 shows a server in a hierarchy, including identifiers that indicate types [col. 6 lines 32 – 33]. Since application servers are part of a tier in the system [Fig. 2 A – C]

and are shown in the partial tree [col. 6 lines 32 – 33], it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to include the tiers (where the servers are located) in the higher levels of the tree. By listing the elements of the system, including tiers, it shows how many tiers exist.

The combination of Carlson and Choquier also teaches that:

[claim 3] the plug-in is responsive to a change in one or more properties of the application complex for configuring at least one of said servers in accordance with said change [col. 4 lines 1 – 38; col. 13 lines 23 – 41];

[claim 4] the plug-in is adapted to convey to the framework information relating to one or more properties of the application complex whose values are to be monitored by the plug-in and the plug-in is adapted to monitor said properties and return their respective values or functions thereof to the framework [col. 11 lines 12 – 42; col. 12 lines 6 – 26];

[claims 5 and 6] the plug-in monitors said properties automatically or in response to a request by the framework [col. 7 lines 53 – 62];

[claims 7 and 8] the plug-in is responsive to a new server being added to (claim 7), or a server being removed from (claim 8), a tier in the application complex for automatically (re)configuring said server and any other servers in the application complex that relate to said server [col. 7 lines 53 – 62; col. 11 line 58 – col. 12 line 7];

[claim 9] the plug-in is adapted to request the framework for a new server [col. 4 lines 33 – 38] [Choquier: col. 7 lines 53 – 62; col. 11 line 58 – col. 12 line 7];

[claim 10] the plug-in is adapted to request the framework to remove a server that belongs to the application complex [Choquier: col. 7 lines 53 – 62; col. 11 line 58 – col. 12 line 7];

[claim 11] the user interface is configured to allow a user to change one or more properties of any application complex instance created by the user [col. 12 lines 6 – 33] [Choquier: col. 7 lines 53 – 62];

[claim 12] the user interface is configured to display properties of any application complex instance created by the user and to allow one or more properties thereof to be changed [Fig. 14; col. 15 lines 29 – 36];

[claim 13] the user interface is a graphical user interface [Fig. 14];

[claim 14] the user interface is adapted to display current instances of application complexes and servers currently included in each tier thereof [Fig. 11; col. 13 lines 22 – 41; see also the rejection of claim 2];

[claims 15 and 16] the user interface is adapted to allow the user to move a server from a free pool of servers into (claim 15), or remove a server from (claim 16), a tier of an application complex instance, and the framework is responsive thereto for identifying the plug-in corresponding to said application complex instance for requesting said plug-in to reconfigure the server and any other servers in the application complex instance that relate to said server according to the properties of the application complex instance [col. 10 lines 7 – 32; col. 12 lines 6 – 26] [Choquier: col. 11 line 58 – col. 12 line 7; col. 23 lines 36 – 48];

[claim 17] the user interface is adapted to allow the user to move a server from a tier of a first application complex instance to a tier of a second application complex instance [Choquier: col. 7 lines 53 – 62; col. 23 lines 36 – 48], and the framework is responsive thereto for:

identifying the plug-in corresponding to said first application complex instance for requesting said plug-in to reconfigure the server and any other servers in the application complex instance that relate to said server according to the properties of the first application complex instance, the plug-in being responsive to said server being removed from the tier in the first application complex for automatically configuring said server and any other servers in the first application complex that relate to said server [col. 10 lines 7 – 32] [Choquier: col. 11 line 58 – col. 12 line 7; col. 23 lines 36 – 48]; and

identifying the plug-in corresponding to said second application complex instance for requesting said plug-in to reconfigure the server and any other servers in the second application complex instance that relate to said server according to the properties of the second application complex instance, the plug-in being responsive to said server being added to a tier in the second application complex for automatically configuring said server and any other servers in the second application complex that relate to said server [col. 10 lines 7 – 32] [Choquier: col. 11 line 58 – col. 12 line 7; col. 23 lines 36 – 48].

[claim 18] the first application complex instance and the second application complex instance are a single application complex instance and the user interface is adapted to allow the user to move a server from a first tier of said application complex

instance to a second tier thereof (Although moving between tiers in a single complex is not specifically stated, Carlson teaches that web servers can make use of local data or application servers [col. 7 line 60 – col. 8 line 7]. Therefore, depending on the requests being received [col. 7 lines 60 – 63], the load of the two tiers can vary and justify reallocating servers as taught by Choquier [col. 23 lines 36 – 48]);

[claims 19 – 21] the user interface is adapted to display the monitored values for each of the monitored properties of any application complex instance created by the user and to interact with the plug-in corresponding to each application complex instance to receive the monitored values [col. 13 lines 22 – 41] [Choquier: col. 24 lines 4 – 12].

As to claims 22 – 24, see the rejection of claim 1. The disclosure of Carlson includes object-oriented programming [col. 8 lines 51 – 63].

Conclusion

7. The prior art made of record on the P.T.O. 892 that has not been relied upon is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding to this Office Action, see 37 C.F.R. 1.111(c).

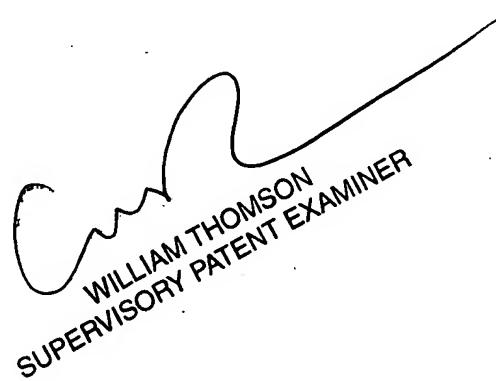
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 7:30am - 4:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP



A handwritten signature in black ink, appearing to read "WILLIAM THOMSON" followed by "SUPERVISORY PATENT EXAMINER". The signature is written in a cursive style with a large, sweeping flourish.